UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,669	07/17/2000	Eric P. Traut	068167.0103	8184

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EXAMINER
CHUONG, TRUC T

ART UNIT	PAPER NUMBER
2174	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)	
Office Action Summary	09/617,669	TRAUT ET AL.	
	Examiner	**Art Unit**	
	Truc T Chuong	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 June 2003</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

1.   Applicant's arguments with respect to original claims 1-12 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claim 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

        Claim 4 recites the limitation "the thumbnail images" in line 3. There is insufficient

antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-2, 6, 8-15, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated

by Brown et al. (U.S. Patent No. 5,673,403).

As to claim 1, Brown teaches a computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, comprising:

a host operating system suitable for displaying a graphical user interface (X Window System, col. 2 lines 15-20);

multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system (col. 2 lines 1-31 and figs. 3-4); and

wherein the host operating system is able to display for a user a reduced-size (sizing features, col. 2 lines 25-26, and col. 4 lines 47-54) representation of the video output of the emulated operating systems (figs. 3-4) that are being operated in a background mode (col. 2 lines 1-31, col. 4 line 55-col. 5 line 39, and figs. 3-4).

As to claim 2, Brown teaches the computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the emulated operating systems (the GUI allocates display screen space, col. 2 lines 20-21, and col. 4 lines 28-54).

As to claim 6, Brown teaches the computer system of claim 1,

wherein the graphical user interface is a windowing environment suitable for displaying one or more windows (col. 2 lines 1-31 and figs. 3-4); and

wherein the portion of the graphical user interface comprising the reduced-size representation is a window (sizing features, col. 2 lines 25-26, and col. 4 lines 47-54).

As to claim 8, Brown teaches a computer system for running one or more software

applications, wherein the software applications are suitable for generating a video output,

comprising:

a host operating system suitable for displaying a graphical user interface (X Window

System, col. 2 lines 15-20);

multiple emulated virtual machines being emulated by one or more emulator programs

running on the host operating system (col. 4 lines 1-54, and figs. 3-4); and

wherein the host operating system is able to display for a user a reduced-size

representation of the video output of each virtual machine being operated in a background mode

(col. 2 lines 1-31, col. 4 line 55-col. 5 line 39, and figs. 3-4).

As to claim 9, Brown teaches the computer system of claim 8, wherein the reduced-size

representations are representations of the video outputs of the virtual machines that are being

operated in the background mode (col. 2 lines 1-31, col. 4 line 55-col. 5 line 39, and figs. 3-4).

As to claim 10, Brown teaches the computer system of claim 9,

further comprising a virtual video memory associated with each of the virtual machines

(the GUI allocates display screen space, col. 2 lines 20-21, and col. 4 lines 28-54) ; and

wherein the reduced-size representations are generated from the video information stored

in the virtual video memory associated with each virtual machine (each client program

specifically for a particular operating system, col. 3 lines 42-55, and col. 5 lines 18-28).

As to claim 11, Brown teaches a method for displaying a reduced-size image of multiple

emulated computer systems, comprising the steps of:

suspending one or more of the multiple emulated computer systems by saving to memory in the host computer system the image of the emulated computer system; reading in at the emulator program from memory in the host computer system the image of the suspended emulated computer system; interpreting in the emulator program the contents of the saved image of the suspended emulated computer system (wait for some period of time before drawing to the X window, col. 6 lines 21-34, and col. 5 lines 18-28);

displaying a reduced-size representation of the suspended emulated computer system (figs. 3-4).

As to claim 12, Brown teaches a method for displaying a reduced-size image of multiple emulated computer systems, comprising the steps of:

reading in at the emulator program from memory in the host computer system the image of the emulated computer system; interpreting in the emulator program the contents of the image of the emulated computer system (col. 5 lines 18-28);

displaying a reduced-size representation of the emulated computer system (figs. 3-4);

periodically updating the reduced-size representation of the emulated computer system (clock program 109 is showing real time, col. 4 line 55-col. 5 line 28, and figs. 3-4).

As to claims 13-15, and 17-20, they are method claims of system claims 1, 1, 2, 8, 1, 9, and 10. Note the rejections of claims 1, 1, 2, 8, 1, 9, and 10 above respectively.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 3-5, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (U.S. Patent No. 5,673,403) in view of Ote et al. (U.S. Patent No. 5,367,628).

As to claim 3, Brown teaches the computer system of claim 2, but Brown does not teach wherein one or more of the video memory components are VRAM memory. Ote clearly teaches VRAM memory (col. 4 lines 47-56, and figs. 2-3). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to have this highly desirable feature of Ote's VRAM into Brown's X Window System to provide fast-block-transfer access to the internal memory.

As to claim 4, Brown teaches the computer system of claim 1, wherein the emulated operating systems operating in a background mode are active (different operating systems are running, col. 2 lines 10-20, and figs. 3-4); but Brown does not clearly show wherein information stored on the video memory components at predetermined intervals. Ote clearly teaches periodically transfer display text and image data, col. 3 lines 50-55, and col. 4 lines 47-55). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to add Ote's time interval into Brown's X Window System to update displayed informations.

As to claim 5, Brown teaches the computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications (clock program 109 is showing real time, col. 4 line 55-col. 5 line 28, and figs. 3-4).

As to claim 16, this is a method claim of system claim 3. Note the rejection of claim 3 above.

8.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (U.S. Patent No. 5,673,403) in view of Brett (U.S. Patent No. 5,850,471).

As to claim 7, Brown does not teach the reduced-size representations are created using a bilinear sampling technique; however, Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious, at the time of the invention, a person with ordinary skill in the art would want to have this data reduction feature of Brett's bilinear sampling technique into Brown's X Window System to improve performance and quality in graphic data loading process (col. 11 lines 1-10).

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Berry et al. (Innovative Graphical Interfaces Using Object Databases for Power System Analysis and Control, 1999, IEEE, pages 200-205) teach X Window, virtual machine, multiple windows, and updated displays (pages 200-205).

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T Chuong whose telephone number is 703-305-5753. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine L. Kincaid can be reached on 703-308-0640. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

Truc T. Chuong

09/13/03

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